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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09.655,862	09/06/2000	OSAMU YUKI	35.C14771	9665

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EXAMINER

JERABEK, KELLY L

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/655,862	YUKI ET AL.	
	Examiner	Art Unit	
	Kelly L. Jerabek	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/6/2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This case has been transferred to Examiner Kelly Jerabek. Please direct all future correspondence to Examiner Jerabek whose contact information can be found at the end of this office action.

Response to Arguments

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

Figures 1, 2A-2K, and 3A-3K should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Kinugasa et al. US 5,043,817 in view of Kaji US 5,838,370.

Re claims 1 and 11, Kinugasa discloses in figures 5 and 6 and image pickup apparatus comprising:

An image pickup area having a plurality of pixels (16);

A reads circuit (11; Kinugasa reads out all pixel signals of the array using interlace scanning combining odd and even rows; see col. 6, lines 11-38) having a first read-out mode for reading signals of pixels contained in a first image pickup area in the

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image pickup area, through addition of n pixels (Examiner notes that Applicant describes a first read means as an addition mode where the pixels located in a central area are read out; see page 14, lines 9-14; also see page 18, line 23 – page 19, line 13); and

Having a second read-out mode (12; Kinugasa reads out signals in a zoom area one row at a time; see col. 6, line 39- col. 7, line 27) for reading signals of pixels contained in a second image pickup area smaller than the first image pickup area through addition of m pixels or without addition (Examiner notes that Applicant describes a second read means as a non-addition mode where the pixels located in a zoom area are read out; see page 14, line 23-page 15, line 5; also see page 19, line 14 – page 20, line 9). Kinugasa discloses all of the above limitations, however the reference does not expressly disclose an exposure control circuit which effects exposure control corresponding to each of the first and second read-out modes.

Kaji discloses in figure 1 a video camera with an electronic zoom function. The camera includes a first readout mode for reading out a normal image and a second readout mode for reading out an electronically zoomed image that is magnified (col. 6, line 33 – col. 7, line 13). It can be seen in figures 3A-3D that the first image pickup area corresponding to a normal image (Figs. 3A,3C) has a larger number of pixels than the second image pickup area corresponding to an electronically zoomed image (Figs. 3B,3D) (col. 5, lines 40-55). Kaji also discloses an exposure control circuit (19) that effects exposure control in accordance with a difference between the number of pixels to be added in the first and second readout modes respectively (col. 6, line 33 – col. 7,

line 13). Therefore, it would have been obvious for one skilled in the art to have been motivated to include an exposure control circuit for effecting exposure control in accordance with first and second readout modes as disclosed by Kaji in the image pickup apparatus including first and second readout modes as disclosed by Kinugasa. Doing so would provide a means for performing an exposure control during an electronic zoom function in order to obtain a proper image (Kaji: col. 1, lines 59-67).

Re claim 2, Kinugasa discloses in figure 6, that the image pickup area includes a common output unit (17) to which signals of a plurality of pixels are read and output sequentially, and wherein the read circuit reads signals through addition of n pixels to the common output unit in the first read-out mode, and reads signals through addition of m pixels or without addition to the common output unit in the second read-out mode (Kinugasa reads out all pixels signals of the array using interlace scanning combining odd and even rows; see col. 6, lines 11-38; and reads out signals in a zoom area one row at a time; see col. 6, line 39-col. 7, line 27).

Re claim 3, Kinugasa discloses in figure 6, the read circuit performs addition of n pixels in the common output unit in the first read-out mode (see col. 6, lines 11-28).

Re claim 4, Kinugasa discloses an image pickup device operable in a normal operation mode where adjacent pixel rows are added and output via a VCCD to a HCCD and a zooming-in mode where pixel rows are singly output. Kinugasa does not

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expressly disclose digitizing the output of either of the two modes. Kaji discloses in figure 1, a video camera that includes a first readout mode for reading out a normal image and a second readout mode for reading out an electronically zoomed image that is magnified. Kaji also states that the video camera includes an analog/digital converter (3) that converts a signal read from an image pickup area into a digital signal.

Re claim 5, Kaji discloses an image data processing circuit (6) which processes signals in the first read-out mode and signals in the second read-out mode (col. 4, lines 12-17).

Re claim 6, Kinugasa discloses the number of signals read by the read circuit in the first read-out mode is approximately equal to the number of signals read by the read circuit in the second read-out mode since all the pixels of the array are read out in both modes (normal operating and zooming in).

Re claim 7, Kaji states that the exposure control circuit (19) stores an exposure evaluation value and a focus evaluation value for the image pickup area and uses the exposure evaluation value and focus evaluation value for an exposure control and a focus control in accordance with designation of either the first (normal) or second (electronic zooming; magnification) modes (col. 6, line 58 – col. 7, line 13).

Re claim 8, Kaji discloses a lens (1) for focusing light upon an image pickup area and an image data processing circuit (4) that forms a luminance signal and color signals by processing signals read from said image pickup area (fig. 1; col. 3, line 59 – col. 4, line 12).

Re claim 9, Kinugasa discloses, in figures 5 and 6, and image pickup apparatus comprising:

An image pickup area including pixels arranged in horizontal and vertical direction, vertical output lines (17) to which signals of pixels are read out and a horizontal output line (18) to which signals from the vertical output lines are read out;

A driver circuit for controlling transistors in the image pickup area to effect a first read-out mode for reading signals of pixels contained in a first image pickup area in the image pickup area through addition of n pixels to the horizontal output line (11; Kinugasa reads out all pixels signals of the array using interlace scanning combining odd and even rows; see col. 6, lines 11-38) and a second read-out mode for reading signals of pixels contained in a second image pickup area smaller than the first image pickup area through addition of m pixels or without addition to the horizontal output line (12; Kinugasa reads out signals in a zoom area one row at a time; see col. 6, line 39 – col. 7, line 27). Although the Kinugasa reference discloses the above limitations, it fails to expressly disclose an exposure control circuit which effects exposure control corresponding to each of the first and second read-out modes.

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Kaji discloses in figure 1 a video camera with an electronic zoom function. The camera includes a first readout mode for reading out a normal image and a second readout mode for reading out an electronically zoomed image that is magnified (col. 6, line 33 – col. 7, line 13). It can be seen in figures 3A-3D that the first image pickup area corresponding to a normal image (Figs. 3A,3C) has a larger number of pixels than the second image pickup area corresponding to an electronically zoomed image (Figs. 3B,3D) (col. 5, lines 40-55). Kaji also discloses an exposure control circuit (19) that effects exposure control in accordance with a difference between the number of pixels to be added in the first and second readout modes respectively (col. 6, line 33 – col. 7, line 13). Therefore, it would have been obvious for one skilled in the art to have been motivated to include an exposure control circuit for effecting exposure control in accordance with first and second readout modes as disclosed by Kaji in the image pickup apparatus including first and second readout modes as disclosed by Kinugasa. Doing so would provide a means for performing an exposure control during an electronic zoom function in order to obtain a proper image (Kaji: col. 1, lines 59-67).

Re claim 10, Kinugasa discloses an image pickup device operable in a normal operation mode where adjacent pixel rows are addend and output via a VCCD to a HCCD and a zooming-in mode where pixel rows are singly output. Although the Kinugasa reference discloses the above limitations, it does not expressly disclose digitizing the output of either of the two modes and it also does not disclose an

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exposure control circuit which effects exposures control corresponding to each of the first and second read-out modes.

Kaji discloses in figure 1 a video camera with an electronic zoom function. The camera includes a first readout mode for reading out a normal image and a second readout mode for reading out an electronically zoomed image that is magnified (col. 6, line 33 – col. 7, line 13). It can be seen in figures 3A-3D that the first image pickup area corresponding to a normal image (Figs. 3A,3C) has a larger number of pixels than the second image pickup area corresponding to an electronically zoomed image (Figs. 3B,3D) (col. 5, lines 40-55). Kaji also states that the video camera includes an analog/digital converter (3) that converts a signal read from an image pickup area into a digital signal. Additionally, Kaji discloses an exposure control circuit (19) that effects exposure control in accordance with a difference between the number of pixels to be added in the first and second readout modes respectively (col. 6, line 33 – col. 7, line 13). Therefore, it would have been obvious for one skilled in the art to have been motivated to include an exposure control circuit for effecting exposure control in accordance with first and second readout modes as disclosed by Kaji in the image pickup apparatus including first and second readout modes as disclosed by Kinugasa. Doing so would provide a means for performing an exposure control during an electronic zoom function in order to obtain a proper image (Kaji: col. 1, lines 59-67).

Allowable Subject Matter

Claims 12-15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claims 12 and 15, the prior art does not teach or fairly suggest an image pickup apparatus comprising an image pickup area, a read circuit having a first and a second read-out mode and an exposure control circuit, wherein the exposure control circuit comprises an amplifier circuit which is arranged to control an amplification factor of the signals read out from the first and second image pickup areas respectively, in accordance with the first and second read-out modes.

Re claim 13, the prior art does not teach or fairly suggest an image pickup apparatus comprising an image pickup area, a driver circuit to effect a first read-out mode and a second read-out mode and an exposure control circuit, wherein the exposure control circuit comprises an amplifier circuit which is arranged to control an amplification factor of the signals read out from the first and second image pickup areas respectively, in accordance with the first and second read-out modes.

Re claim 14, the prior art does not teach or fairly suggest an image pickup apparatus comprising an image pickup area, an analog/digital converter circuit, a

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processing circuit and an exposure control circuit, wherein the exposure control circuit comprises an amplifier circuit which is arranged to control an amplification factor of the signals read out from the first and second image pickup areas respectively, in accordance with the first and second read-out modes.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Homma et al. (US 6,124,891) discloses an exposure control device. The information regarding controlling exposure of a camera based on a light measuring area of a camera is relevant material.

Tamura et al. (US 5,959,670) discloses an image pickup apparatus with exposure control correction. The information regarding controlling exposure of a camera base on a magnification enlargement process performed by a camera is relevant material.

Hata (US 6,657,668) discloses a system for controlling automatic focusing of a digital camera. The information regarding determining an auto exposure value for an imaging area is relevant material.

Tamura et al. (US 6,806,907) discloses an image pickup apparatus with exposure control correction. The information regarding controlling exposure of a camera base on a magnification enlargement process performed by a camera is relevant material.

Tamura et al. (US 2004/0201730) discloses an image pickup apparatus with exposure control correction. The information regarding controlling exposure of a camera base on a magnification enlargement process performed by a camera is relevant material.

Contacts


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is **(571) 272-7312**. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on **(571) 272-7308**. The fax phone number for submitting all Official communications is 703-872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at **(571) 273-7312**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLJ


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